

.....  
(Original Signature of Member)

109TH CONGRESS  
1ST SESSION

**H. R.** \_\_\_\_\_

To increase the security of radiation sources, and for other purposes.

\_\_\_\_\_  
**IN THE HOUSE OF REPRESENTATIVES**

Mr. MARKEY introduced the following bill; which was referred to the  
Committee on \_\_\_\_\_

\_\_\_\_\_  
**A BILL**

To increase the security of radiation sources, and for other  
purposes.

1       *Be it enacted by the Senate and House of Representa-*  
2       *tives of the United States of America in Congress assembled,*

3       **SECTION 1. SHORT TITLE.**

4       This Act may be cited as the “Dirty Bomb Prevention  
5       Act”.



1 **SEC. 2. RADIATION SOURCE PROTECTION.**

2 (a) AMENDMENT.—Chapter 14 of the Atomic Energy  
3 Act of 1954 (42 U.S.C. 2201 et seq.) is amended by add-  
4 ing at the end the following new section:

5 “SEC. 170C. RADIATION SOURCE  
6 PROTECTION. —

7 “a. NUCLEAR REGULATORY COMMISSION AP-  
8 PROVAL.—Not later than 180 days after the date of enact-  
9 ment of this section, the Nuclear Regulatory Commission  
10 shall issue regulations prohibiting a person from—

11 “(1) exporting a radiation source unless the  
12 Nuclear Regulatory Commission has specifically  
13 found, with respect to that export, that—

14 “(A) the appropriate regulatory agency in  
15 the recipient country—

16 “(i) has been informed of the pro-  
17 posed export; and

18 “(ii) has determined that the proposed  
19 export will be made in accordance with the  
20 recipient nation’s laws and regulations;

21 “(B) the recipient nation has the appro-  
22 priate technical and administrative capability,  
23 resources, and regulatory structure to ensure  
24 that the radiation source will be managed in a  
25 safe and secure manner; and



1           “(C) the person exporting the radiation  
2           source has made arrangements to retake pos-  
3           session of it when the recipient is no longer  
4           using it;

5           “(2) importing a radiation source unless the  
6           Nuclear Regulatory Commission has specifically  
7           found, with respect to that import, that—

8           “(A) the proposed recipient is authorized  
9           under law to receive the shipment; and

10          “(B) the shipment will be made in accord-  
11          ance with all applicable Federal and State laws  
12          and regulations; and

13          “(3) selling or otherwise transferring ownership  
14          of a radiation source unless the Nuclear Regulatory  
15          Commission has specifically found, with respect to  
16          that sale or transfer, that—

17          “(A) the proposed recipient is authorized  
18          under law to receive the radiation source; and

19          “(B) the transfer will be made in accord-  
20          ance with all applicable Federal and State laws  
21          and regulations.

22          “b. TRACKING SYSTEM.—Not later than 180 days  
23          after the date of enactment of this section, the Nuclear  
24          Regulatory Commission shall issue regulations estab-



1 lishing a mandatory tracking system for all radiation  
2 sources in the United States. Such system shall—

3 “(1) enable the identification of each radiation  
4 source by serial number or other unique identifier;

5 “(2) require reporting within 24 hours of any  
6 change of geographic location or ownership of a ra-  
7 diation source, including any change of geographic  
8 location that occurs while the radiation source is  
9 being transported;

10 “(3) require reporting within 24 hours of any  
11 loss of control of or accountability for a radiation  
12 source; and

13 “(4) provide for reporting through a secure  
14 Internet connection.

15 “c. PENALTY.—Each violation of regulations issued  
16 under subsection a. or b. shall be punishable by a civil  
17 penalty of up to \$1,000,000.

18 “d. NATIONAL ACADEMY OF SCIENCES STUDY.—Not  
19 later than 60 days after the date of enactment of this sec-  
20 tion, the Nuclear Regulatory Commission shall enter into  
21 an arrangement with the National Academy of Sciences  
22 for a study of industrial, research, and commercial uses  
23 for radiation sources. The study shall review the current  
24 uses for radiation sources, identifying industrial or other  
25 processes that utilize radiation sources that could be re-



1 placed with economically and technically equivalent (or im-  
2 proved) processes that do not require the use of radiation  
3 sources, or that can be used with radiation sources that  
4 would pose a lesser risk to public health and safety in the  
5 event of an accident or attack involving the radiation  
6 source. The Nuclear Regulatory Commission shall trans-  
7 mit the results of the study to Congress not later than  
8 24 months after the date of enactment of this section.

9 “e. COMMISSION ACTIONS.—Not later than 60 days  
10 after receipt by Congress and the President of a report  
11 required under subsection f.(3)(B), the Nuclear Regu-  
12 latory Commission, in accordance with the recommenda-  
13 tions of the task force, shall take any appropriate actions,  
14 including commencing revision of its system for licensing  
15 radiation sources, and shall take necessary steps to ensure  
16 that States that have entered into an agreement under  
17 section 274 b. establish compatible programs in a timely  
18 manner.

19 “f. TASK FORCE ON RADIATION SOURCE PROTEC-  
20 TION AND SECURITY.—

21 “(1) ESTABLISHMENT.—There is hereby estab-  
22 lished a task force on radiation source protection  
23 and security.

24 “(2) MEMBERSHIP.—The task force shall be  
25 headed by the Chairman of the Nuclear Regulatory



1 Commission or the Chairman's designee. Its mem-  
2 bers shall be the following:

3 "(A) The Secretary of Homeland Security  
4 or the Secretary's designee.

5 "(B) The Secretary of Defense or the Sec-  
6 retary's designee.

7 "(C) The Secretary of Energy or the Sec-  
8 retary's designee.

9 "(D) The Secretary of Transportation or  
10 the Secretary's designee.

11 "(E) The Attorney General or the Attor-  
12 ney General's designee.

13 "(F) The Secretary of State or the Sec-  
14 retary's designee.

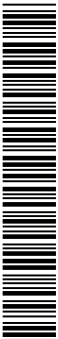
15 "(G) The Director of National Intelligence  
16 or the Director's designee.

17 "(H) The Director of the Central Intel-  
18 ligence Agency or the Director's designee.

19 "(I) The Director of the Federal Emer-  
20 gency Management Agency or the Director's  
21 designee.

22 "(J) The Director of the Federal Bureau  
23 of Investigation or the Director's designee.

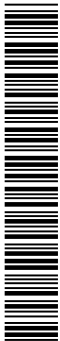
24 "(3) DUTIES.—



1           “(A) IN GENERAL.—The task force, in  
2           consultation with other State, Federal, and  
3           local agencies and appropriate members of the  
4           public, after public notice and an opportunity  
5           for public comment, shall evaluate and provide  
6           recommendations to ensure the security of radi-  
7           ation sources from potential terrorist threats,  
8           including acts of sabotage, theft, or use of such  
9           radiation sources in a radiological dispersal de-  
10          vice.

11          “(B) RECOMMENDATIONS TO CONGRESS  
12          AND THE PRESIDENT.—Not later than 1 year  
13          after the date of enactment of this section, and  
14          not less than once every 3 years thereafter, the  
15          task force shall submit a report to Congress  
16          and to the President, in unclassified form with  
17          a classified annex if necessary, providing rec-  
18          ommendations, including recommendations for  
19          appropriate regulatory and legislative changes,  
20          for—

21               “(i) a list of additional radiation  
22               sources that should be required to be se-  
23               cured under this Act, based on their poten-  
24               tial attractiveness to terrorists and the ex-  
25               tent of the threat to public health and



1 safety, taking into account radiation source  
2 radioactivity levels, dispersability, chemical  
3 and material form, and, for radiopharma-  
4 ceuticals, the availability of these sub-  
5 stances to physicians and patients whose  
6 medical treatments relies on them, and  
7 other factors as appropriate;

8 “(ii) the establishment of or modifica-  
9 tions to a national system for recovery of  
10 radiation sources that have been lost or  
11 stolen;

12 “(iii) the storage of radiation sources  
13 not currently in use in a safe and secure  
14 manner;

15 “(iv) modification to the national  
16 tracking system for radiation sources;

17 “(v) the establishment of or modifica-  
18 tions to a national system to impose fees  
19 to be collected from users of radiation  
20 sources, to be refunded when the radiation  
21 sources are properly disposed of, or any  
22 other method to ensure the proper disposal  
23 of radiation sources;

24 “(vi) any modifications to export con-  
25 trols on radiation sources necessary to en-

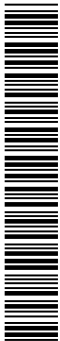




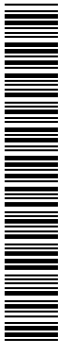
1           sure that foreign recipients of radiation  
2           sources are able and willing to control  
3           United States-origin radiation sources in  
4           the same manner as United States recipi-  
5           ents;

6           “(vii) whether alternative technologies  
7           are available that can perform some or all  
8           of the functions currently performed by de-  
9           vices or processes that employ radiation  
10          sources, and if so, the establishment of ap-  
11          propriate regulations and incentives for the  
12          replacement of such devices or processes  
13          with alternative technologies in order to re-  
14          duce the number of radiation sources in  
15          the United States, or with radiation  
16          sources that would pose a lesser risk to  
17          public health and safety in the event of an  
18          accident or attack involving the radiation  
19          source; and

20          “(viii) the creation of or modifications  
21          to procedures for improving the security of  
22          radiation sources in use, transportation,  
23          and storage, which may include periodic  
24          Nuclear Regulatory Commission audits or  
25          inspections to ensure that radiation



1 sources are properly secured and can be  
2 fully accounted for, Nuclear Regulatory  
3 Commission evaluation of security meas-  
4 ures, increased fines for violations of Nu-  
5 clear Regulatory Commission regulations  
6 relating to security and safety measures  
7 applicable to licensees who possess radi-  
8 ation sources, criminal and security back-  
9 ground checks for certain individuals with  
10 access to radiation sources (including indi-  
11 viduals involved with transporting radi-  
12 ation sources), assurances of the physical  
13 security of facilities that contain radiation  
14 sources (including facilities used to tempo-  
15 rarily store radiation sources being trans-  
16 ported), requirements and a mechanism for  
17 effective and timely exchanges of informa-  
18 tion regarding the results of such criminal  
19 and security background checks between  
20 the Nuclear Regulatory Commission and  
21 States with which the Commission has en-  
22 tered into an agreement under section 274  
23 b., and the screening of shipments to facili-  
24 ties particularly at risk for sabotage of ra-



1 diation sources to ensure that they do not  
2 contain explosives.

3 “g. DEFINITION.—For purposes of this section, the  
4 term ‘radiation source’ means any sealed or unsealed  
5 source whose activity levels are within Category 1, Cat-  
6 egory 2, or Category 3 as defined under the Code of Con-  
7 duct on the Safety and Security of Radioactive Sources,  
8 approved by the Board of Governors of the International  
9 Atomic Energy Agency on September 8, 2003.”.

10 (b) TABLE OF SECTIONS AMENDMENT.—The table of  
11 sections of the Atomic Energy Act of 1954 is amended  
12 by adding at the end of the items relating to chapter 14  
13 the following new items:

“Sec. 170B. Uranium supply.

“Sec. 170C. Radiation source protection.”.

14 **SEC. 3. TREATMENT OF ACCELERATOR-PRODUCED AND**  
15 **OTHER RADIOACTIVE MATERIAL AS BY-**  
16 **PRODUCT MATERIAL.**

17 (a) DEFINITION OF BYPRODUCT MATERIAL.—Sec-  
18 tion 11 e. of the Atomic Energy Act of 1954 (42 U.S.C.  
19 2014(e)) is amended—

20 (1) by striking “means (1) any radioactive” and  
21 inserting “means—  
22 “(1) any radioactive”;  
23 (2) by striking “material, and (2) the tailings”  
24 and inserting “material;



1 “(2) the tailings”; and

2 (3) by striking “content.” and inserting “con-  
3 tent;

4 “(3)(A) any discrete source of radium that is  
5 produced, extracted, or converted after extraction,  
6 before, on, or after the date of enactment of this  
7 paragraph for use in commercial, medical, or re-  
8 search activity; or

9 “(B) any material that—

10 “(i) has been made radioactive by use of a  
11 particle accelerator; and

12 “(ii) is produced, extracted, or converted  
13 after extraction, before, on, or after the date of  
14 enactment of this paragraph for use in commer-  
15 cial, medical, or research activity; and

16 “(4) any discrete source of naturally occurring  
17 radioactive material, other than source material,  
18 that—

19 “(A) has been removed from the natural  
20 environment and has been concentrated to lev-  
21 els greater than that found in the natural envi-  
22 ronment due to human activities; and

23 “(B) before, on, or after the date of enact-  
24 ment of this paragraph, is extracted or con-



1           verted after extraction for use in commercial,  
2           medical, or research activity.”.

3           (b) AGREEMENTS.—Section 274 b. of the Atomic En-  
4   ergy Act of 1954 (42 U.S.C. 2021(b)) is amended—

5           (1) by amending paragraph (1) to read as fol-  
6   lows:

7           “(1) byproduct materials (as defined in section  
8   11 e.);”;

9           (2) by striking paragraph (2); and

10          (3) by redesignating paragraphs (3) and (4) as  
11   paragraphs (2) and (3), respectively.

12          (c) REGULATIONS.—

13          (1) IN GENERAL.—Not later than 1 year after  
14   the date of enactment of this Act, the Nuclear Regu-  
15   latory Commission, after consultation with States  
16   and other stakeholders, shall promulgate final regu-  
17   lations as the Commission considers necessary to im-  
18   plement this Act and the amendments made by this  
19   Act. Such regulations shall include a definition of  
20   the term “discrete” for purposes of paragraphs (3)  
21   and (4) of section 11 e. of the Atomic Energy Act  
22   of 1954 (as added by subsection (a)) that is de-  
23   signed to ensure that byproduct material is con-  
24   trolled in a manner consistent with other materials



1 that pose the same threat to public health and safety  
2 and the common defense and security.

3 (2) COOPERATION.—The Commission shall co-  
4 operate with the States in formulating the regula-  
5 tions under paragraph (1), and to the extent prac-  
6 ticable shall use existing State consensus standards.

7 (3) TRANSITION.—To ensure an orderly transi-  
8 tion of regulatory authority with respect to byprod-  
9 uct material as defined in paragraphs (3) and (4) of  
10 section 11 e. of the Atomic Energy Act of 1954 (as  
11 added by subsection (a)), the regulations promul-  
12 gated under paragraph (1) shall include a transition  
13 plan, developed in coordination with States, for—

14 (A) States that have not, before such plan  
15 is issued, entered into an agreement with the  
16 Commission under section 274 b. of the Atomic  
17 Energy Act of 1954 (42 U.S.C. 2021(b)); and

18 (B) States that have entered into such an  
19 agreement with the Commission, including, in  
20 the case of a State that has entered into such  
21 an agreement and has certified that it has an  
22 existing State program for licensing of the by-  
23 product material defined in paragraphs (3) and  
24 (4) of section 11 e. of the Atomic Energy Act  
25 of 1954 (as added by subsection (a)) that is



adequate to protect public health and safety,  
provision for assumption by the State of regu-  
latory responsibility for such byproduct material  
through an administrative process that—

(i) provides interim provisional rec-  
ognition of an existing State program for  
licensing the byproduct material until  
adoption of an amended agreement under  
section 274 b.; and

(ii) requires that the byproduct mate-  
rial is included in the periodic reviews of  
the State programs for adequacy and com-  
patibility required under section 274 j.(1).

(4) AVAILABILITY OF RADIOPHARMA-  
CEUTICALS.—In its promulgation of final rules  
under paragraph (1), the Commission shall consider  
the impact on the availability of radiopharma-  
ceuticals to the physicians and patients whose med-  
ical treatment relies on them.

(d) WASTE DISPOSAL.—

(1) IN GENERAL.—Section 81 of the Atomic  
Energy Act of 1954 (42 U.S.C. 2111) is amended  
by adding at the end the following: “Byproduct ma-  
terial may only be transferred to and disposed of in  
a disposal facility licensed by the Commission, if the



1 disposal facility meets the licensing requirements of  
2 the Commission and is adequate to protect public  
3 health and safety, or a disposal facility licensed by  
4 a State that has entered into an agreement with the  
5 Commission under section 274 b., if the disposal fa-  
6 cility meets requirements of the State that are com-  
7 patible with the licensing requirements of the Com-  
8 mission and is adequate to protect public health and  
9 safety.”.

10 (2) BYPRODUCT MATERIAL NOT CONSIDERED  
11 LOW-LEVEL RADIOACTIVE WASTE.—Section 2(9) of  
12 the Low-Level Radioactive Waste Policy Act (42  
13 U.S.C. 2021b(9)) is amended by adding after sub-  
14 paragraph (B) the following:

15 “Such term shall not include byproduct material as  
16 defined in paragraphs (3) and (4) of section 11 e.  
17 of the Atomic Energy Act of 1954.”.

18 (e) EFFECTIVE DATE.—Subsections (a), (b), and (d)  
19 shall take effect 1 year after the date of enactment of this  
20 Act.

21 **SEC. 4. RADIATION SOURCES CONTROLLED BY DEPART-**  
22 **MENT OF ENERGY.**

23 (a) NUCLEAR FUEL.—

24 (1) REPORT.—Not later than 6 months after  
25 the date of enactment of this Act, the Secretary of





1 Energy shall transmit to Congress a report account-  
2 ing for the location and status of all nuclear fuel  
3 that has been exported by the Federal Government.

4 (2) REACQUISITION.—

5 (A) IN GENERAL.—The Secretary of En-  
6 ergy shall, to the maximum extent practicable,  
7 reacquire nuclear fuel described in paragraph  
8 (1) for disposal, giving highest priority to nu-  
9 clear fuel that is—

10 (i) in a location that is not secure; or

11 (ii) in a country that does not have  
12 sufficient resources to either properly dis-  
13 pose of the nuclear fuel or return the nu-  
14 clear fuel to the United States for disposal.

15 (B) AUTHORIZATION OF APPROPRIA-  
16 TIONS.—There are authorized to be appro-  
17 priated to the Secretary of Energy \$50,000,000  
18 for each of the fiscal years 2006 through 2010  
19 for carrying out subparagraph (A).

20 (b) RADIATION SOURCES AND SEALED SOURCES OF  
21 PLUTONIUM.—

22 (1) REPORT.—Not later than 6 months after  
23 the date of enactment of this Act, the Secretary of  
24 Energy shall transmit to Congress a report account-  
25 ing for the location and status of all radiation



1 sources (as defined in section 170C(g) of the Atomic  
2 Energy Act of 1954, as added by section 1 of this  
3 Act) and sealed sources of plutonium weighing more  
4 than 1 gram that have been exported by the Federal  
5 Government.

6 (2) REACQUISITION.—

7 (A) IN GENERAL.—The Secretary of En-  
8 ergy shall, to the maximum extent practicable,  
9 reacquire radiation sources and sealed sources  
10 of plutonium described in paragraph (1) for dis-  
11 posal that are—

12 (i) in a location that is not secure; or

13 (ii) in a country that does not have  
14 sufficient resources to either properly dis-  
15 pose of the radiation sources and sealed  
16 sources of plutonium or return the radi-  
17 ation sources and sealed sources of pluto-  
18 nium to the United States for disposal.

19 (B) AUTHORIZATION OF APPROPRIA-  
20 TIONS.—There are authorized to be appro-  
21 priated to the Secretary of Energy \$30,000,000  
22 for each of the fiscal years 2006 through 2010  
23 for carrying out subparagraph (A).

